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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/721,859

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Scott Peterson

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07/02/2007

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EXAMINER

CARRILLO, BIBI SHARIDAN

ART UNIT

PAPER NUMBER

1746

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/721,859

Applicant(s)

PETERSON, SCOTT

Examiner

Sharidan Carrillo

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1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 14 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The limitations or “at a specified rate of speed”, “the internal cross sectional area “, “minimizing interference between said rotating flexible shaft and said conduit by allowing said collar and said conduit to rotate during at least one interval in which said electrical motor is operating and said flexible shaft is rotating, whereby allowing said collar and said conduit to rotate during operation of the electric motor”, constitute new matter, not supported by the specification, as originally filed. Additionally, the specification, as originally filed, does not teach the rotation of the collar and conduit during the operation of the electric motor. The flexible shaft rotates during the operation of the electric motor, as described on page 8 of the specification. Page 9 of the specification, lines 1-12, specifically teaches that when the vacuum job is completed, the conduit is wrapped around the vacuum unit. Also refer to page 4, lines 7-

10. Since the conduit is rotatable, the conduit avoids twisting as it is wrapped around the vacuum unit.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitations of connecting an electric motor to a second end of the flexible shaft must be shown or the feature(s) canceled from the claim(s) 14. No new matter should be entered. Page 5, lines 12-15 teaches a motor which is releasably coupled to the flexible shaft 219, as shown in Fig. 3. However, Fig. 3 teaches the shaft 219 coupled to element 143, which is the housing of the vent cleaning apparatus.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

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Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Franklin Jr. (4792363) and in view of Berfield (6478342) and in further view of Clements (2326439).

In reference to claim 14, refer to claims 10-13 of Franklin Jr. et al. In reference to the electric motor coupled to the flexible shaft, refer to col. 3, lines 10-12. Franklin Jr.

teaches the invention substantially as claimed with the exception of a swivel cuff between the vacuum source and the vacuum conduit. Berfield teaches a swivel coupling for a hose. Fig. 1 shows a swivel cuff 14 positioned between a vacuum source 16 and a hose 20. The swivel cuff allows the hose to swivel, so the vacuum attachment may be positioned as needed and the hose does not kink during use. In reference to minimizing torque, Berfield teaches the swivel coupling which allows the hose to swivel or rotate during use, thereby minimizing twisting forces and kinks in the hose. In reference to the threaded end for securing the swivel cuff, Berfield in col. 1, lines 35-50, teaches it is notoriously well known and conventional in the art to use a threaded connection in order to attach the swivel coupling to the hose.

It would have been obvious to a person of ordinary skill in the art to have modified the method of Franklin Jr. to include a swivel coupling of Berfield, for purposes of allowing the hose to swivel or rotate during use, thereby minimizing twisting forces and kinks in the hose during use. It would have been well within the level of the skilled artisan to have modified the method of Franklin to include a threaded connection, as taught by Berfield, which are conventionally used for attachment of the swivel hose coupling to the vacuum hose.

Franklin in view of Berfield fail to teach a rotatable collar being removably secured to the conduit. Clements teaches a rotatable collar 15 having a plurality of cutouts 19 to engage the vacuum conduit 25 (Figs. 4-5). Clements teaches locking elements 12 which engage with cutout slots 19 to provide a locking mechanism. The rotatable collar and cutout 19 are known as a "bayonet slot". Clements teaches the

bayonet connection as a hose attachment to vacuum cleaners. The bayonet connection provides a quick and detachable coupling and the added advantages of providing an airtight connection. Additionally, it is well known and conventional in the art to use bayonet type connections for coupling hoses in order to provide a quick and effective means for coupling tubing together, as evidenced by Mills (2732225).

It would have been obvious and within the level of the skilled artisan to have modified the modified method of Franklin, to include a rotatable collar, as taught by Clements, for purposes of providing a quick and detachable coupling that offers the advantages of providing an airtight connection between the hoses. Since Berfield teaches a swivel cuff for purposes of allowing the hose to swivel or rotate during use, thereby minimizing twisting forces and kinks in the hose during use, one would reasonably expect the interference between the rotating shaft and the hose to be minimized or reduced as the result of the hose not kinking or twisting during use.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Franklin Jr. (4792363) in view of Draudt et al. (4625998) and further in view of Clements (2326439).

In reference to claim 14, refer to claims 10-13 of Franklin Jr. et al. In reference to the electric motor coupled to the flexible shaft, refer to col. 3, lines 10-12. Franklin Jr. teaches the invention substantially as claimed with the exception of a threaded swivel cuff between the vacuum source and the vacuum conduit. Draudt et al. teach a swivel coupling for a hose. Fig. 1 shows a swivel hose coupling 1 attached to a hose 2. The coupling includes a threaded end portion for engagement with the hose (col. 1, lines 59-

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65). The swivel hose coupling allows the hose to swivel or rotate so that the vacuum attachment may be positioned as needed and the hose does not have to be twisted or kinked during use. In reference to minimizing torque, Draudt teaches the swivel coupling which allows the hose to rotate during use, thereby minimizing twisting forces in the hose.

It would have been obvious to a person of ordinary skill in the art to have modified the method of Franklin Jr. to include a threaded swivel coupling of Draudt, for purposes of allowing the hose to swivel or rotate during use, thereby minimizing twisting forces and kinks in the hose during use.

Franklin in view of Draudt fail to teach a rotatable collar being removably secured to the conduit. Clements teaches a rotatable collar 15 having a plurality of cutouts 19 to engage the vacuum conduit 25 (Figs. 4-5). Clements teaches locking elements 12 which engage with cutout slots 19 to provide a locking mechanism. The rotatable collar and cutout 19 are known as a "bayonet slot". Clements teaches the bayonet connection as a hose attachment to vacuum cleaners. The bayonet connection provides a quick and detachable coupling and the added advantages of providing an airtight connection. Additionally, it is well known and conventional in the art to use bayonet type connections for coupling hoses in order to provide a quick and effective means for coupling tubing together, as evidenced by Mills (2732225).

It would have been obvious and within the level of the skilled artisan to have modified the modified method of Franklin, to include a rotatable collar, as taught by Clements, for purposes of providing a quick and detachable coupling that offers the

advantages of providing an airtight connection between the hoses. Since Draudt teaches a swivel cuff for purposes of allowing the hose to swivel or rotate during use, thereby minimizing twisting forces and kinks in the hose during use, one would reasonably expect the interference between the rotating shaft and the hose to be minimized or reduced as the result of the hose not kinking or twisting during use.

Response to Arguments

8. Applicant argues that Franklin in view of Berfield or Draudt fail to teach protecting the rotating shaft within a hose from damage resulting from interference between the hose and the rotating shaft. Applicant's arguments are not persuasive because they are not commensurate in scope with the instantly claimed invention. Further, since Berfield and Draudt teaches a swivel cuff for purposes of allowing the hose to swivel or rotate during use, thereby minimizing twisting forces and kinks in the hose during use, one would reasonably expect the interference between the rotating shaft and the hose to be minimized or reduced as the result of the hose not kinking or twisting during use.

Additionally, page 9 of the specification teaches that the swivel cuff of the present invention allows for the conduit to be wrapped around the vacuum unit and avoid twisting of the cable containing conduit. The specification further states that the cable life is extended since twisting and torque forces are reduced. The prior art of Berfield or Draudt teaches the same concept. Specifically, the prior art teaches a swivel cuff for purposes of allowing the hose to swivel or rotate during use, thereby minimizing twisting

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forces and kinks in the hose during use. If the torque is minimized as a result of less kinks and twists, there is less tension between the shaft and the conduit, thereby extending the use of the conduit. Additionally, interference between the shaft and the conduit is minimized by the use of a swivel cuff since the conduit does not twist or kink during usage.

9. Applicant further argues that the Berfield fails to teach a rotatable collar. The limitations of a rotatable collar are met by the teachings of Clements, as previously discussed above.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharidan Carrillo whose telephone number is 571-272-1297. The examiner can normally be reached on Monday-Friday, 6:00a.m-2:30pm.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sharidan Carrillo
Primary Examiner
Art Unit 1746

bsc



SHARIDAN CARRILLO
PRIMARY EXAMINER